OBJECTIVES: This study estimates the effect of national essential drug system on drug price and patient selection of pilot grass-root medical institution. **METHODS:** This study employs DID (difference-in-difference) method to investigate the effect of Essential Drug Regime Reform (EDRR) on drug price and patient selection of public grass-root medical institutions. Our sample comes from a Chinese city's Urban Employee Basic Medical Insurance Reimbursement Dataset for inpatient care from 2009-2010. The full sample has 53416 observations including 2896 unique pharmaceutical firm-level products from 210 grass-root medical institutions. The dependent variable is the average price of each product in each month from each medical institution. The key independent variables are dummy variables indicating the pilot institutions (TREAT), the releasing time of Essential Drug Regime (EDR) and interaction of them (TREAT*EDR). **RESULTS:** The results show that after the implementation of EDR, drug price on the pilot institutions decreased significantly by 37 percent (relative to control institution). Especially, essential drugs fell by 43.3 percent relative to control institution. This policy has no significant effect on non-essential drugs. After the implementation of the national essential drug system inpatient expenditures of the pilot medical institutions increased by 20.67%, length of stays increased by about three days, relative to the non-pilot medical institutions. After all, there is no change in patient co-payment rate. We found that patients more severe (diagnosed with more than one diseases) chose to go to the pilot medical institution increased by 7%. **CONCLUSIONS:** The national essential drug systerm has signifcant effect on durg price, especially the essential drug, and the patients more severe prefered to go to the grass-root medical institution rather than levle-2 and level-3 hospitals.

PHP10

AN ANALYSIS OF DETERMINANTS OF NEW AND BLAND-NAME DRUGS PRESCRIPTION BEHAVIOR AMONG JAPANESE PHYSICIANS

Ma X, Kakihara H

Kyoto University, Kyoto, Japan

OBJECTIVES: Japanese government has promoted the use of generic drugs as means to decrease the burden to patients as well as to improve the situation of public finance sustainability. However, the proportion of generic prescriptions out of the total prescriptions written is lower compared to other developed countries. We thus examine the determinants of prescription of new and brand name drugs to understand what discourages Japanese physicians from prescribing generic drugs. **METHODS:** Using data from an original survey of 300 physicians conducted in September 2012. These surveys are analyzed with regard to the potential influence of the following factors: physicians' information seeking behavior regarding drugs, principal-agent relationship, risk and time preferences and physician characteristics. The analysis uses an ordered logistic regression model. **RESULTS:** Our major findings are summarized as follows. First, it can be said that the proportion of new drug prescriptions to all prescriptions rises as physicians' intensity in information seeking behavior increases, but it is not significantly affected by principle-agent relationship or risk or time preferences. Second, the proportion of brand name drug prescriptions is positively associated with increased consideration of drug safety but negatively associated with that of drugs costs, pointing toward the hypothesis that the principal-agent relationship is an important factor. Third, time preference significantly determines the prescription of brand name drugs whereas risk preference does not. In particular, the more preferred is current consumption over future consumption, the greater proportion of brand name drugs is prescribed. Neither risk nor time preferences significantly affects the proportion of prescription of new drugs. Finally, the impact of each determinant on prescription behavior differs between internal medicine physicians and physicians in other areas of specialization. **CONCLUSIONS:** Our empirical results suggest a limitation of uniform policies across physicians such as provision of financial incentives as means to the promotion of generic drug use.

PHP11

REVIEW ON MEDICINES PRICES AND AVAILABILITY IN INDONESIA: 2004 TO 2012

Siahaan S, Handayani RS

National Institute of Health Research and Development (NIHRD), Jakarta Pusat, Indonesia

OBJECTIVES: In 2014 Indonesia started National Health Insurance (NHI). This study aimed to search the existing evidence base on access to medicine issues to recommend policy options and model of medicines prices to be used in the era of NHI. **METHODS:** NIHRD conducted study at 2012 by reviewing several surveys results of access to medicines from 2004-2012 and organising several discussion forums about access to medicines. The participants were key persons from government, private sectors, NGOs and other related stakeholders. **RESULTS:** Indonesia medicines prices surveys using WHO-HAI method in 2004, 2010 and 2012 showed access to medicines problems still had similar patterns i. e. several district health offices bought medicines with higher prices than national standard prices and several public hospitals sold several medicines with higher prices than private sectors. Most medicines prices (>90%) were still higher than international reference price. The Median Price Ratios (MPRs) of medicines for public sector in Indonesia were 1.74 (2004) and 1.52 (2012), while in Malaysia was 1.09 (2004) and in Thailand was 1.46 (2006), but in Philippine was 2.06 (2009). The availability of medicines in public sectors was consistent lower than in private sectors. Study (2007) showed the availability of several essential and generic medicines in several public health facilities were enough for <3 months. Study (2011) showed availability of FDC medicines for tuberculosis and ACT for malaria in endemic areas were inadequate (50%&70%). Discussion forums summarized main points: Medicines prices can be controlled by full time pharmacist if they serve rational drug use to patients. NHI has ability to control medicines prices, etc. **CONCLUSIONS:** Pharmacy should not "mark-up" medicines prices, but charge pharmacist services fee to patients. The government should set up MPRs of medicines in the list of NHI formulary no more than 1.50 and assure its availability, and NHI should implement pharmacoeconomics for new medicines.

PHP12

REVIEW OF REFERENCE PRICING EFFECTS ON PHARMACEUTICALS

Zhou W, Cui X, Qian Y

Sanofi China, Beijing, China

OBJECTIVES: Reference pricing has been popular used in many countries as a reimbursement policy to contain raising pharmaceutical expenditures since Germany first introduced in1989. China is under discussion concerning implementation of reference pricing for innovative drug pricing. This study is designed to overview the effects of reference pricing on health care helps to provide reference evidence to estimate the potential role of reference pricing for policy strategy making, and deliver the suggestion on benefit/risk analysis when adopting reference pricing in China. **METHODS:** We systematic reviewed published review studies or literatures based on empirical outcome effects analysis of reference pricing and present the common assess conclusion or views on the effect of reference pricing across all experiences, selected research covered different countries and backgrounds have little coverage to keep the references outcomes diversity and little overlap. **RESULTS:** Results shows that reference pricing could decreases drug prices include in system and original and generic drug price reductions are different according to pharmaceutical markets power. Reference pricing increases drug use of priced below or at the reference price. Reference pricing could save drug expenditures limited in the short-run but no sufficient evidence showed on the long-term expenditures reduction. Besides, no adverse effect was clearly found on patient access pharmaceutical services by reference pricing. **CONCLUSIONS:** Evidences indicates that reference pricing seems to be effective for governments to contain pharmaceutical expenditures and more research is need on the long-term effects and impact on different health care systems of reference pricing.

PHP14

QUESTIONNAIRE ANALYSIS ON PHARMACISTS ROLE AND DRUG REIMBURSEMENT LIST ADJUSTMENT MECHANISM UNDER THE CURRENT CHINA HEALTH INSURANCE SYSTEM

Song R[1], Xuan J[2], Chen C[1], Wang M[1], Xie X[3]

[1]*China Pharmaceutical Research and Development Association, Beijing, China,* [2]*Fudan University, School of Public Health, Warren, NJ, USA,* [3]*Pfizer China, Beijing, China*

OBJECTIVES: To study how to adjust the roles of pharmacists under the currently health insurance system; and how to perfect the mechanism for drug reimbursement list adjustment under China. current social health insurance system **METHODS:** China Pharmaceutical Industry Research and Development Association formulated the *Questionnaire on the Roles of Pharmacists and the Health Insurance System*. Survey was conducted to pharmacists and experts in relevant fields from early April 2013. By the middle of May, 152 questionnaires were returned, in which 141 ones were considered effective for the statistics. **RESULTS:** As to the pharmacist system, 95% respondents agree to popularize the pharmacist system comprehensively in the hospitals. Respondents believe that pharmacists shall be entitled to the rights of verifying prescriptions, examining medication cost information, dispensing high quality drugs with preference, and participating in RDL adjustment. The majority of respondents (81.6%) agree to link the medical institutions and medical insurance agencies on line, which can better take advantage of pharmacistsrole. As to the RDL adjustment cycle, most respondents (78.7%) believe that current 4-year cycle is not reasonable, and more people (46.8%) think 2 years may be better. The respondents think that major problems in current RDL adjustment mechanism lie in the lack of evaluationstandards and procedures transparency. More people (61.0%) agree that the pharmacoeconomics evaluation shall be an essential basis for RDL adjustment decisions process. The survey results also show that at present, the system design for pharmacoeconomics application is not mature, and relevant capacity building and legislative guarantee are urgently required. **CONCLUSIONS:** It has been a commonly recognization to improve the pharmacist system and strengthen the rights of pharmacist in prescription examination and drug dispensing. Evidence-based researches on how to shorten adjustment cycle, establish a transparent and open decision-making process, and attach importance to the pharmacoeconomics are major issues needing improvements in the present RDL adjustment mechanism.

PHP15

HOW DO ORGANIZATIONAL ARRANGEMENTS OF THE PHARMACEUTICAL SUPPLY SYSTEM AFFECT AVAILABILITY TO ESSENTIAL MEDICINES IN RURAL CHINA?

Zuo G

Shandong University, Jinan, China

OBJECTIVES: The manifold reasons lead to lack of availability to essential medicines, but higher price induced by pharmaceutical patent and organizational arrangements of pharmaceutical supply system is main barrier. Since 2009, Chinese government has constructed essential medicines policy of centralized purchasing, uniform distribution and "zero-mark-up" (i. e. no-profit) sale to supply essential medicines, all but generic drugs. This study aims to develop a theoretical methodology to examine the impact of organizational arrangements on availability to essential medicines. **METHODS:** We present a theoretical framework based on organizational economics to identify organizational boundary and inter-organization relationship of pharmaceutical supply system in order to define the stakeholders' function and to find competition and cooperation relationship between them. We collect evidence from nine township hospitals at three counties of Shandong Province with different economic and geographical environment from July to August 2011. Organizational arrangements are identified by document review, interviews and focus group discussions with stakeholders. Availability to essential medicines is measured as allocated rate and timeliness arrival rate of national essential medicines by questionnaire and online transaction records. **RESULTS:** The mean allocated rate of national essential medicines was 51.47% because organizational boundary between stakeholders was so vague that the stakeholders' function was not clear and pharmaceutical manufacturers didn't receive the demand information of township hospitals. Timeliness arrival rate of national essential medicines within three days was from 33.77%